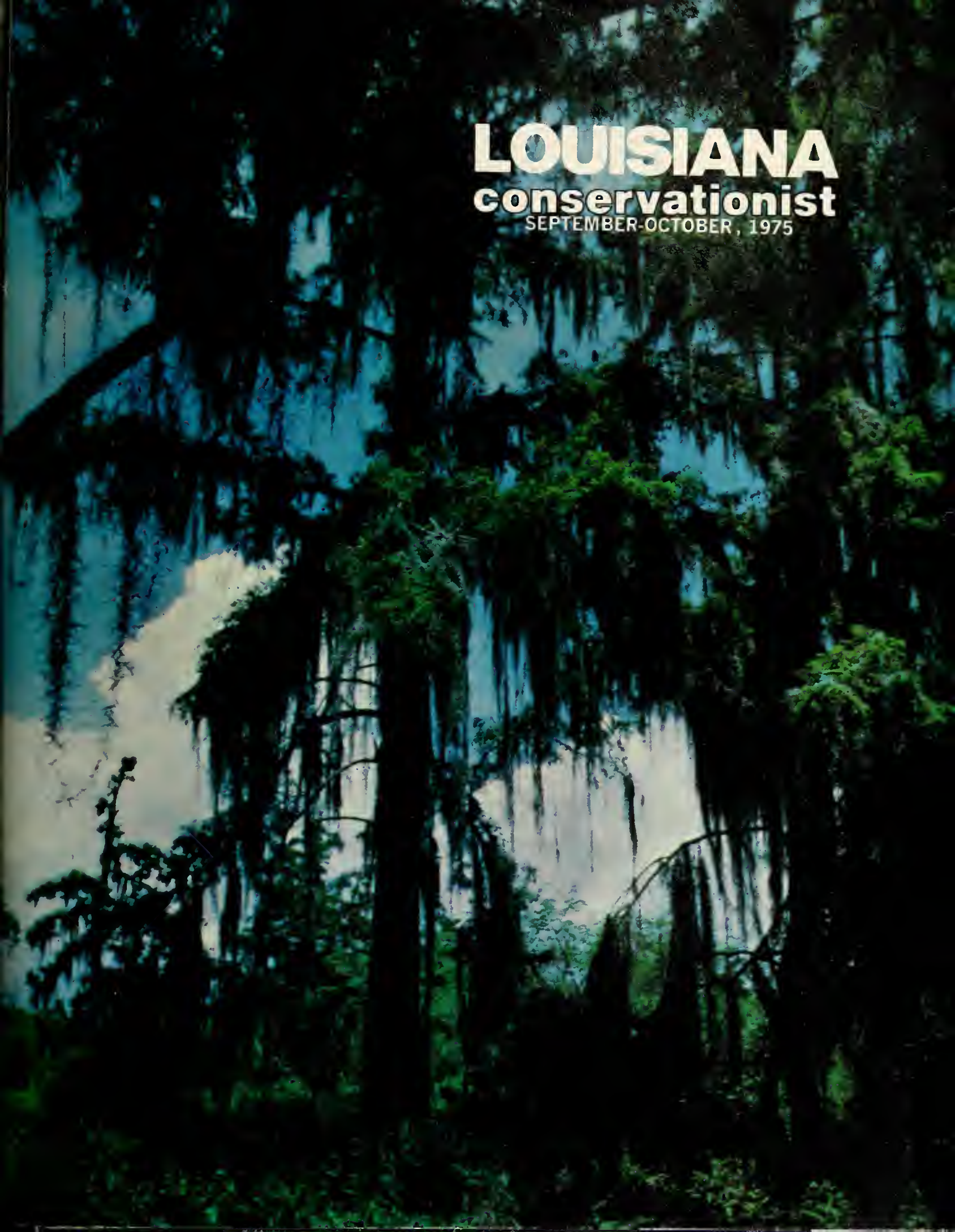
LOUISIANA
conservationist

SEPTEMBER-OCTOBER, 1975



J. BURTON ANGELLE, *Director*

...comments

The law is the last result of human wisdom acting upon human experience for the benefit of the public.

—Samuel Johnson

I can readily recall the concern expressed early this year during the joint annual conventions of the Louisiana Wildlife Federation and the Louisiana Outdoor Writers Association. Two of the most important questions on the lips of those attending both meetings were: "What will happen to the Conservation Fund?" and "What will happen to the Louisiana Wildlife and Fisheries Commission under House Bill 1000, or reorganization of state government into not more than 20 departments?"

Resolutions were passed by both groups calling for restoration of the Conservation Fund, independence from consolidation of the Wildlife and Fisheries Commission with other agencies, and passage of an amendment to the Motorboat Safety Act so that registration of Louisiana boats would not be moved to Washington by the U.S. Coast Guard. There were other matters of concern, but these three stand out foremost in my mind today.

The resolutions were appreciated and the concern expressed early in the year over implementation of the Constitution of 1974 as it affected wildlife and fisheries resources was a natural one. Now that the work of the 1975 Louisiana Legislature is a matter of record and can be reviewed in retrospect, I feel confident that the sportsmen of Louisiana join with me and the commission in expressing thanks to Governor Edwards and the legislature for resolving important questions.

On page four of this issue will be found a short digest of some of the most important Acts of the recent legislature. There are numerous others that have direct effect on wildlife and fisheries operations and regulations and these will be made public through the news media. I feel, at this time, that it is important to comment on the major Acts.

The Louisiana Wildlife and Fisheries Commission will remain an entity as the 20th department under the governmental consolidation provisions of the new Constitution that became effective in January. It will remain the same from a structural standpoint, as a seven member commission appointed by the governor. The Conservation Fund has been re-established under the new Constitution. These three Acts are found in capsule form on page four.

The state Motorboat Safety Act has been amended to track the Federal Boat Safety Act of 1971. This will mean that registration fees of boats will not pass to the U.S. Coast Guard in Washington, that registration fees will not be increased, and that all boat owners must comply with the Act. This will be covered fully in the November-December issue of the Louisiana Conservationist. However, I urge all owners of boats powered by engines of any horsepower to register their boats as soon as possible. The deadline before enforcement is January.

In addition to responding with favorable action to the pleas of sportsmen on the issues mentioned earlier in these comments, I feel it is appropriate to mention at this time the acceleration of the commission's land acquisition program.

In the past six months alone, four Acts of Sale have been completed in the governor's office for the purchase of land with funds appropriated by the 1974 Louisiana Legislature. In March, 1,499 acres were added to the Three Rivers Wildlife Management Area. In May, an additional 2,095 acres were added to that area, bringing the total acreage in Three Rivers Wildlife Management Area to 16,732.

In June of this year, a new wildlife management area was purchased. A tract of 5,261 acres of prime wetlands in St. John the Baptist Parish became the Manchac Wildlife Management Area. It is described in full in this issue.

In August, another wildlife management area was purchased. Some 3,075 acres were acquired just south of Monroe. The land was bought from Crown-Zellerbach Company.

This represents a total purchase this year of 11,930 acres permanently dedicated to public recreation and wildlife management, truly reflecting a phrase from the quotation of Samuel Johnson "for the benefit of the public." Other negotiations are underway at the present time.

We are pleased with this program, as well as with the Acts of the legislature which make the commission an entity, structured to best serve the people of the State of Louisiana, and financed as it has been in the past with self-generated funds and not tax dollars.

I would be remiss not to mention the many private landowners in Louisiana who have opened their lands to public hunting, or lands presently leased by the commission and managed for wildlife and public usage. This greatly augments the total acreage available to the public in pursuit of outdoor recreation in the form of hunting, fishing, camping, hiking, and related activities.

I would like to urge additional landowners or corporations owning large or relatively smaller tracts of land to join in this program. If they are interested, they can contact the Louisiana Wildlife and Fisheries Commission.

In summary, much has been accomplished for sportsmen and for the general public in recent months, setting the pace for greater accomplishments in the months and years immediately ahead.

LOUISIANA conservationist

Published bi-monthly by the Louisiana WildLife and Fisheries Commission in the interest of conservation of Louisiana's natural resources.

EDWIN W. EDWARDS, Governor

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LLOYD POISSENOT, *Staff Photographer*

FRONT AND BACK COVERS: Scenic views of the newly-acquired Manchac Wildlife Management Area. Photography by Lloyd Poissenot.

> *I give my pledge as an American to*
> *save and faithfully to defend*
> *from waste the natural*
> *resources of my country—its soil*
> *and minerals, its forest, waters*
> *and wildlife.*

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NEW ACTS

Gov. Edwin Edwards signs Act 343 of the 1975 Louisiana Legislature into law, providing for re-establishment of the Conservation Fund under the Constitution of 1974. Signing the Act culminated a promise made months ago by Edwards to Louisiana sportsmen to push for re-establishment of the special fund. From left, are Senator W. D. Brown, chairman of the Senate Natural Resources Committee; Gov. Edwards; J. Burton Angelle, director of the Louisiana Wildlife and Fisheries Commission; and Representative Morris A. Lottinger, Jr., chairman of the House Natural Resources Committee.

ACT 720—Provides that under the Reorganization of State Government into not more than 20 departments, as mandated by the Constitution of 1974, the Louisiana Wildlife and Fisheries Commission be designated as one of these departments, and that it not be consolidated with any other department, office, commission, or agency within the executive branch. All 20 departments are to be headed by secretaries appointed by the governor.

ACT 343—Re-established the "Conservation Fund" which had been invalidated by the Constitution of 1974 by providing that a special fund designated as such be created within the treasury. Provides for payment to this fund by the state treasurer an amount equal to the total funds paid into the treasury by the commission, and provides for use by the commission the money placed in the Conservation Fund, subject to appropriation by the Legislature.

ACT 321—Amends the Louisiana Motorboat Safety Act to conform with provisions of the Federal Boat Safety Act of 1971, which makes it mandatory to register all boats equipped with or propelled by machinery regardless of size, type, or horsepower, whether or not such machinery is the principal source of propulsion. Act became effective August 1 but enforcement will not start until January, to allow owners time to comply. Fees remain the same.

ACT 251—Amends present hunting regulations regarding wild turkey to specifically prohibit the use of bait or the use of electronic calls in turkey hunting.

ACT 246—Amends statutes by setting standard fees for non-resident hunting licenses as follows: basic season—$25; basic three-day trip—$10; big game—$20. These are average national non-resident fees.

ACT 651—Provides that ten percent of the basic resident hunting license fees collected by the commission shall be used exclusively for the purpose of rejuvenating quail and small game populations in the state.

ACT 213—Places Holmes Bayou in St. Tammany Parish in the Scenic Rivers System.

ACT 655—Places Bayou Dupre, Lake Borgne Canal, Bashman Bayou, Terre Beau Bayou, Pirogue Bayou and Bayou Bienvenue and Bayou Chaperon in the Scenic Rivers System.

ACT 247—Prohibits the hunting or taking of game quadrupeds or game birds from moving land vehicles or aircraft.

ACT 248—Prohibits the importation, sale, or offer for sale of certain aquatic plants (such as hydrilla, etc.) in Louisiana.

By Joe L. Herring

Lloyd Poissenot

1975–76 Hunting Seasons And Outlook

QUAIL—November 27 through February 28. Daily bag limit is 10, possession limit is 20.

RABBIT—October 4 through February 28. Daily bag limit is 8, possession limit is 16.

SQUIRREL—October 4 through January 11. Daily bag limit is 8, possession limit is 16.

BEAR—October 18 through October 26. In that part of the Atchafalaya Floodway, located in portions of St. Landry, St. Martin, Iberville, and Pointe Coupee Parishes, bounded on the north by La. Hwy. 10, on the east by the East Atchafalaya Basin Protection Levee, on the south by Interstate Hwy 10, and on the west by the West Atchafalaya Basin Protection Levee. Limit is one per day, one per season.

DEER—See hunting regulations folder for details. Limit is one per day, six per season. Big game hunting license necessary in addition to basic hunting license.

TURKEY—March 27 through April 25. Some areas may have different opening dates. See hunting regulations folder for details. Daily bag limit is one, season limit is three.

RACCOON/OPOSSUM—No closed season, no bag limit. Can be hunted only at night by two or more hunters with a dog or dogs and one .22 caliber rimfire rifle.

ARCHERY—October 1 through January 11. Either sex, except where bucks-only season is in progress for gun hunters. See hunting regulations folder for details and open areas. Limit one per day, six per season.

DOVE—(North Zone)—September 6 through September 21. October 11 through November 16. December 20 through January 5. The north zone lies above U.S. Hwy. 190. Daily bag limit is 12, possession limit is 24. Shooting hours are noon to sunset.

DOVE—(South Zone)—October 11 through November 30. December 20 through January 7. The south zone lies below U.S. Hwy. 190. Daily bag limit is 12, possession limit is 24. Shooting hours are noon to sunset.

RAIL—November 1 through January 9. Daily bag limit on King and Clapper is 15, possession limit is 30. Daily bag and possession limit on Sora and Virginia is 25 in the aggregate.

SNIPE—(Wilson's)—December 6 through February 8. Daily bag limit is 8, possession limit is 16.

GALLINULE—September 20 through November 28. Daily bag limit is 15, possession limit is 30.

TEAL—September 20 through September 28. Daily bag limit is 4, possession limit is 8. Blue-wing and green-wing only. Valid hunting license and signed affixed duck stamp necessary. Shooting hours from one-half hour before sunrise to sunset in both east and west waterfowl zones.

WOODCOCK—December 6 through February 8. Daily bag limit is 5, possession limit is 10.

CROWS—Crows and blackbirds are year-round depredators in Louisiana and may be taken at any time.

HOGS—Unmarked hogs may be taken during certain seasons on Bodcau, Catahoula, Caney, Fort Polk, Jackson-Bienville, Pearl River, Red Dirt, Saline, and Thistlethwaite Wildlife Management Areas. See hunting regulations folder for restrictions. No bag limit.

COMMERCIAL HUNTING PRESERVES—October 1 through April 30. Penreared birds only.

Louisiana's diversified terrain, varying from rolling hills blanketed with mixed pine-hardwood forests to delta hardwood bottomlands, to the vast sea of green and brown marshland of the southern parishes, offers habitat suited to many forms of wildlife. The state's hunting seasons virtually span an eight month period. Starting in early September with the first segment of dove shooting which melts into the special teal season there are only brief recesses between hunting seasons that continue into April when hunters wind up their months of activity seeking wild turkey during the spring season.

After that first, fast session with dove in early September and nine days of teal hunting later that month, hunting seasons open rapidly. In progressive and generous seasons, Louisiana hunters can take their pick of squirrel, rabbit, gallinule, quail, some bear hunting, deer, rail, snipe, woodcock, duck, goose, and coot. These seasons are in addition to those on dove and teal.

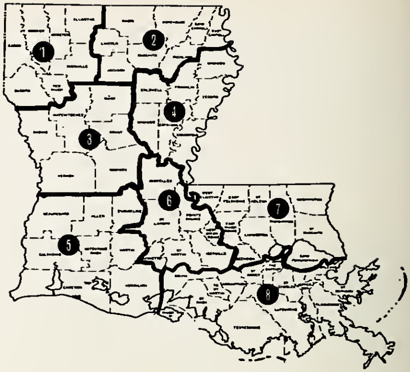
Along with this gun hunting, it is significant to point out that Bayou State hunters have the longest archery season in the country, primarily for either-sex deer. While success of archery hunting is not high when compared to gun hunting, it does improve the woodsmanship of gun hunters and enhances opportunities in still hunting with a gun.

The Louisiana Wildlife and Fisheries Commission manages a total of 33 wildlife management areas and one waterfowl management area (See page 18) which are open for public hunting. The acreage involved in these tracts is approximately 1,000,000, with the land either owned or leased by the commission. Leased land belongs to lumber companies, individuals, land companies, and state and federal agencies. In addition to hunting, these areas provide public hunting, camping, boating, fishing, bird watching, photography, and related forms of outdoor recreation.

Post-season surveys this year indicate that hunting was good during the 1974-75 seasons, and there is every reason to believe that hunting will be as good or better in 1975-76. Last year, 162,141 deer hunters bagged 80,183 deer (80 percent bucks and 20 percent does), an increase of 7,000 deer over the previous season. This is far more deer than were present in Louisiana three decades ago, and one of the country's outstanding examples of sound wildlife management.

Other forms of hunting were equally productive. Post-season surveys showed that hunters bagged 3,480,549 squirrels, 1,237,452 rabbits, 390,011 quail, and 1,355,000 doves.

Shooting hours for resident game birds and animals are from one-half hour before sunrise to one-half hour after sunset.
Shooting hours for migratory game birds are from one-half hour before sunrise to sunset.



DISTRICT I

Robert B. Kimble

Supervisor

Prospects for a good hunting season in northwest Louisiana are as good or better than last season, which was above average and satisfying for all who participated. Some species had a fine reproductive period and this should be evidenced by hunters going afield.

The deer herd continues to be at a high level over all of the parishes in District I. Cool summers, marked by intermittent showers that characterized the warm months, provided good, tender, succulent browse for deer. Hunters may expect to have as good a season on deer as last year, perhaps even better.

A bumper mast crop in the fall of 1974 should result in a large population of squirrels to be harvested this fall and early winter. It is a matter of record that squirrel reproduction is high following a good year as far as mast is concerned. Well nourished adult squirrels have a greater reproductive ability than those that have had to go through the winter on a lean diet. Hunters can fully anticipate a good squirrel season.

Good weather conditions throughout the summer months helped produce good quail populations. This, coupled with more new acreage in clearings scattered in the woodlands of northwest Louisiana, contributed to a relatively high quail population. Bobwhite quail hunting should be fair to good for 1975-76 in this district.

The number of rabbits in northwest Louisiana remains fairly high, with populations along the Red River continuing to be good. More rabbits are being seen around some of the newly established openings in the hill areas of this district. It is an established fact that openings stimulate the growth of both food and cover plants that are essential for high rabbit populations. Hunting should be fair to good, depending on the area hunted.

Wild turkey populations continue to hold their own, and some of the release sites show slight increases in turkey populations. That portion of Claiborne and Union parishes opened for turkey hunting continues to have good wild turkey populations. Hunters next spring can anticipate about the same success as was obtained last turkey season.

There are occasional reports of bear in northwest Louisiana, and bears are occasional visitors in the area. However, population density is far from high enough to warrant a bear season at this time.

DISTRICT II

Cliff T. Williams

Supervisor

Prospects are good for quail hunters even though some quail development programs were curtailed by record rainfall and flooding in parts of this district. Many pairs of quail have been sighted, but that only a few young birds were observed may indicate the hatch was delayed by weather. Considerable food plot development was accomplished on Union Wildlife Management Area. General outlook at the time this is being written is for good hunting in upland areas.

A bumper crop of rabbits in the hills and uplands will greatly offset slack reproduction in the bottomland hardwoods which experienced flooding. These areas may be slightly less productive than in 1974-75, so hunters should concentrate efforts in hilly upland areas.

Squirrel hunters can anticipate an average season in the bottomland hardwoods. It will be a different story in the hills where there is an excellent crop of squirrels. Hunting there should assure a much better season than in 1974-75. Hunting hilly stream bottoms should result in highly satisfying bags.

Deer populations in the bottomlands remain stable. Field reports indicate large numbers of deer in East Carroll parish. Deer populations in the hills are fine. Generally speaking, hunting should be better in the coming season than in 1974-75.

Wild turkey populations have fallen off but this can be attributed directly to successive flooding for three years, causing a temporary drop. Hunter success will be down with the bag being made by skillful and experienced hunters. Hill country hunting will offset conditions predicted for the bottomlands. Population increases have been noted, with turkeys expanding in suitable habitat stands. This means that overall turkey hunting in the district should be good, depending on where hunters go in search of wild gobblers.

Lloyd Poissenot

As for bear, there have been no verified reports during the past year of bear sightings. Field workers have discovered no sign that bear are present. Habitat is such that this district will never be considered prime hunting area for bear, since it is anticipated that bear would not migrate into the district regardless of population increases elsewhere in the state.

DISTRICT III

Clyde E. Harrison

Supervisor

Another good hunting season appears to be in store for central Louisiana. Areas of good habitat for a given species of wildlife always give promise of good game populations. Pine land clear-cutting continues, creating additional habitat for some wildlife species.

Deer hunters should have the same success as last year now that herds have become more or less stabilized. Physical characteristics have generally become somewhat smaller, as is typical in deer populations that have become stable or level.

Taking into consideration the limited amount of habitat remaining in District III, an excellent crop of spring squirrels was produced this year and hunters should have a better than usual season. Hardwood mast production has been good for the past couple of years and is one of the factors influencing squirrel populations. Creek bottoms are about the only places with enough hardwoods present to make squirrel hunting worthwhile.

Lloyd Poissenot

Unless abnormal rainfall continues, quail hunters will enjoy a good season. Spring and summer rains stimulated natural food production and a good longleaf mast is expected. Continued rain could adversely affect nesting and survival of chicks. At this time record rainfall is being experienced.

Rabbit hunters, on the other hand, will have better hunting because of prolonged rainfall. Heavy spring and summer rains have had a good influence on rabbit habitat. Populations of this species will be at a high level.

Turkeys hunters in the spring will have an opportunity to try their luck on several wildlife management areas where the birds are quite numerous. This is a relatively new sport for central Louisiana hunters where skill and luck are both important when it comes to bagging wild turkeys. At least eight hunters in this area were successful last season. A longer season in 1975-76 should result in more birds being taken and in more hunters adding turkeys to their hunting list. Publicity given successful turkey hunters does much to stimulate interest of other hunters. It also serves to increase the interest of hunters in the turkey management program.

DISTRICT IV

Dan Dennett

Supervisor

Again this year, wildlife populations experienced unfavorable weather conditions. Consequently, the bottomland hardwood regions have once more seen prolonged flooding during the first half of the year. However, as water recedes, habitat recovers quickly. Prospects of hunting do not appear too gloomy at this time.

Deer populations, in general, remain at a high level. Hunter success for the forthcoming season should not differ significantly from the last several years except in certain local areas that were subjected to the combined influence of extended flooding and habitat destruction brought about by land clearing.

Habitat damaged by spring flooding shows evidence of rapid recovery as flood waters receded. Respective deer herds appear to be in good physical condition. Piney woods deer herds within the district are judged to be at high levels. Hunters using this part of the district and state can expect another good season.

Mast production last fall in both hill and bottomland portions of the district was high and resulting food supply should bring about a bumper crop of squirrels for the approaching season. Changes in land use practices resulting in the removal of mast-producing hardwoods continue to be the most serious problem squirrel hunters face. Each year, thousands of acres of hardwoods are cleared for agricultural purposes, or killed as a result of industrial timber management.

Lloyd Poissenot

Since weather and habitat conditions appear to have been ideal for rabbit reproduction, hunter success should be high in most areas of the district. Some localities that have experienced continued flooding for the last several years can expect low success due to habitat deficiencies.

Early observations of quail populations indicate hunting should be better than last year wherever suitable habitat is found. Weather has favored reproduction. Land use changes are reducing habitat in some areas but recently cleared industrial lands in hill parishes should furnish excellent hunting.

Good mast, combined with favorable weather, should mean good turkey hunting in the spring. It should be better than average in the delta areas of the district. Wild turkey populations are on the increase.

DISTRICT V

Jack A. Sims

Supervisor

Generally speaking, deer hunting should be about equal to last year throughout this district, but some areas of Calcasieu and Jefferson Davis parish should be higher than last year due to expanding deer herds in those areas. This prediction, similar to those from other districts, is made even though the increase in the deer bag was 7,000 last season, following a steady upward climb for the past years.

Quail hunting success should be equal to last year, or slightly better. Two reasons support this prediction: prospects for a heavy pine mast are good and this should make the birds more accessible to hunters; secondly, heavy thinning and clearing of young pine plantations has improved quail habitat.

Squirrel populations are about the same as last season. Consequently, hunting should be on a par with last year but not much better because last year was a bumper one. There was an excellent mast crop last year. This is conducive to high squirrel populations. In short, hunters can anticipate excellent hunting.

Rabbit populations should be high, as is being reported from all areas of the state. Ample rainfall in the spring and summer produced abundant food which consequently assures high reproduction.

There are no wild turkey or bear seasons proposed for this district but deer, squirrel, rabbit, and quail should provide excellent hunting for resident game.

This is an important district for waterfowl and other migratory game birds such as snipe and woodcock. No reports have been received thus far from the U. S. Fish and Wildlife Service, but it is anticipated that the zoning of the state for waterfowl will result in more hunter opportunity and consequently a greater bag of ducks.

In summary, hunting should be good throughout the district this season. Habitat and food is available in good amounts to maintain near-peak levels of wildlife. Hunters should have the same success or better.

DISTRICT VI

Cecil LaCaze

Supervisor

The hunting outlook for 1975-76 is not overly optimistic and the reasons, as applicable to species, are presented bluntly. Quail hunting is anticipated to be poor because the habitat necessary for quail is limited.

Rabbit hunting should be fair to good even though reproduction was limited in flooded areas. Overgrazing by cattle is becoming more common in much of the district.

Best bet for hunters would be squirrels. The crop for the 1975-76 hunting season is expected to be good to excellent. Last year's mast crop was not quite as heavy as that of 1973-74, but was a good crop. Two good years of mast are responsible for the good production rate of squirrels.

Deer are plentiful, but the quality of the deer herds has been decreasing due to more areas becoming over-populated. Heavy hunting pressure would do a great deal to thin out existing herds and start them on an upward swing as far as quality is concerned.

The wild turkey outlook is good for next spring, with the single exception of Raccourci Island-Point area. This general area was again flooded and the turkey population present is not deemed huntable.

The outlook for bear is fair. Area populations are increasing slowly and bears are apparently widely scattered over a large area. Slow reproduction is characteristic of bear even under optimum conditions.

The outlook for both Thistlethwaite and Spring Bayou Wildlife Management Areas is in sharp contrast to the rest of the district. Deer are excellent in numbers and quality. Light, selective timber cutting has improved deer habitat. A good crop of acorns has deer in excellent condition. Squirrel and rabbit populations are good and woodcock hunting will depend upon weather conditions. If rainfall is normal, woodcock should be plentiful in the area.

The outlook on Spring Bayou is good but not as impressive as on Thistlethwaite. Deer are abundant and quality of the herd is good. Squirrel and rabbits are fair. Mast crop was down in this area for squirrels, as compared with the previous year. Woodcock will depend entirely on rainfall and the moisture available when the flight birds begin drifting into Louisiana.

DISTRICT VII
Dick Roberts
Supervisor

As far as deer hunting is concerned, there should be very little change from last year, even though hardwood mast production appears to be less than last season's crop.

Wild turkeys have not fared as well as they might have due to two successive years of low reproduction. This followed an outbreak of fowl pox in the central portion of the district. Consequently, the western portion of the district has a much better outlook. Reference is to that part of the district from the Mississippi River eastward to the Comite River.

Squirrel hunting is not expected to be much different from last year, with hunter success being about the same as was experienced during the 1974-75 season.

The same is true for rabbits. There should be approximately the same hunter success as was experienced last year.

It is hoped that dove hunting will be better than last year. It was generally a poor season for dove hunters. Agricultural practices can have a distinct bearing on dove hunter success. In some cases, adverse weather can hurt dove hunting success.

Quail hunting is anticipated to be better than last year unless there is prolonged rainfall through the summer. The improvement in the quail populations should be most noticeable from St. Helena parish eastward in the district.

Waterfowl, as well as snipe hunting, will depend entirely upon nesting success in breeding grounds and weather conditions during normal migration periods.

In summary, hunting should be about as good as last season, with a noticeable upswing in quail hunting success provided the rains do not continue all summer at record-breaking levels. This would have an adverse effect.

DISTRICT VIII
Robert Beter
Supervisor

The outlook for hunting seasons during the 1975-76 season is predicated upon normal weather conditions, particularly in those areas bordering the Gulf of Mexico.

The outlook for rabbits is generally good, with the exception of the areas in the lower Atchafalaya Floodway in Iberia, St. Martin, and Assumption parishes. General marsh and upland areas apper to be good.

Conditions appear to favor a good squirrel crop this season. Hunter success should be about par with last year, certainly not as less.

For quail hunters, those parishes west of the Mississippi River on the higher elevations or adjacent to cane fields appear to be holding their own as far as quail are concerned. Some of the larger plantations have initiated management programs, increasing both cover and food. The results have been beneficial.

Lloyd Poissenot

The outlook for deer is good. Receding flood waters have made more food available to deer in the lower Atchafalaya area and these deer should be in excellent condition.

There will be no bear season in the district. The only parish that has a small bear population is St. Mary. This small nucleus presently does not warrant a bear season, although at times some bear have caused nuisance problems.

The wild turkey population has been widely dispersed because of high water conditions during the prior two to three years. This is not totally detrimental, but makes it difficult to estimate total turkey populations.

General range and food conditions on the Bohemia Wildlife Management Area are good for deer, squirrel, and rabbit. Deer appear to be in excellent shape and it is anticipated that additional hunters will utilize this management area.

Conditions are good on the Wisner Wildlife Management Area, with abundant food for waterfowl. General marsh conditions are good, but bad weather this summer could change existing conditions.

so you need a place to hunt!

by frank davis

photography by lloyd poissenot

Are any lands still open to public hunting in Louisiana? Where are they located? How do you get to them? What terrain types are on them? How good is the hunting? This special feature answers all these questions...and up-dates the ever-growing list of Louisiana wildlife management areas.

Indisputedly, the days of finding pri
hunting spots in wooded areas just off hi
way rights-of-way are gone. It is rare, t
when one finds a landowner who is will
to open his acreages to public hunting. A
what remains of the scattered undevelop
sections across the state daily are be
transformed either into additional priv
tracts or extensions of suburban spra

But public hunting areas do still ex
The Louisiana Wildlife and Fisher
Commission has set aside 1,092,236 ac
as "wildlife management areas," and 211,
acres of that are permanently owned
the state. A total of 707,262 acres are lea
for WMA use from companies, agenc
and individuals.

Additionally, Kisatchie National For
has 150,000 acres under game manageme
and its remaining 595,301 acres under U
Forest Service jurisdiction are open
hunting during regular seasons. One s
further, 173,842 acres of federal ref
lands are open for waterfowl hunting.

So when added together, this gives
hunter a supergrand total of *2,924,573 ac*
open for public hunting...this year!

Alexander Forest Wildlife Management Area: 7,875 acres in Rapides Parish. Shortleaf and loblolly pine. Squirrel, rabbit, deer, and woodcock—fair. Camping on designated areas. One campground maintained by LWLFC just off area. Entrance via Hwy. 165. Good interior roads.

Bodcau Wildlife Management Area: 32,471 acres in Bossier and Webster Parishes. Upland pine and bottomland hardwoods. 1,200-acre greentree reservoir provides outstanding duck hunting. Deer, quail, squirrel, and woodcock—good. Dove—fair. Unmarked hogs. Camping on designated areas only; three areas complete with water and outdoor toilets. Good interior roads.

Bohemia Wildlife Management Area: 33,000 acres in Plaquemines Parish. Saline marshes along the bays; higher tree ridges along the Mississippi River. Rabbit populations high. Deer—excellent. Waterfowl—good, but varies from pothole to pothole. Squirrel—good along the ridges. Rail and snipe—good in low marshes along larger bays and lakes. Access via Hwy. 39 south of Point-a-la-Hache. Camping on designated areas.

Bonnet Carre Wildlife Management Area: 3,800 acres in St. Charles Parish. Hardwood terrain; center portion rich in aquatic and semi-aquatic plants. Squirrels on both the east and west boundaries. Quail—fair. Dove, woodcock, duck, coot, snipe, and rail—found in varying numbers during winter months. No deer on the area. Access via Hwy. 61. Interior dirt roads. Camping on designated areas—one public site on Hwy. 61 in Norco.

Biloxi Wildlife Management Area: 40,000 acres 30 miles southeast of New Orleans in St. Bernard Parish. Interior marsh; a network of bayous, lagoons, ditches, and ponds; some isolated ridges. All game species open to hunting. Although populations of rabbit and deer exist, area is basically for waterfowl. No daily permits required. Access only by boat—launch at Shell Beach, Yscloskey, and Hopedale. Larger boats may cross Lake Borgne from Chef Menteur and Rigolets. No campgrounds.

Caney Wildlife Management Area: 31,000 acres of U.S. Forest Service land plus 3,000 acres of privately owned lands in Claiborne and Webster Parishes. Shortleaf and loblolly with a hardwood mixture. Deer, squirrel, quail, and woodcock—good. Turkey and duck—fair. Unmarked hogs. Camping only on designated areas; water and electricity provided at the campsite at Caney Lakes for a fee payable to the U.S. Forest Service. Excellent interior roadway system.

Catahoula Wildlife Management Area: 36,117 acres within Kisatchie National Forest in Winn and Grant Parishes. Longleaf, loblolly, and shortleaf pine on high ground; hardwoods in low areas. Deer, squirrel, quail, and woodcock—good. Rabbit—fair. Turkey cannot be hunted. Unmarked hogs. Camping on designated areas only; one fenced site maintained by the LWLFC just outside the southwest portion. Outdoor toilets at the campsite. Entrance via Hwys. 167 and 472. Excellent interior roadway system.

Cities Service Wildlife Management Area: 13,090 acres 5 miles northeast of Monroe. Flat terrain—pine timber and hardwood mixture. Deer—excellent. Turkey, squirrel, rabbit, quail, dove, and duck—fair. Turkey restocking in progress. Experimental raccoon season. Access via Hwys. 594, 134, and 554. Fair interior roads. No camping.

Concordia Wildlife Management Area: 8,525 acres in northern Concordia Parish. The best hardwood bottomlands remaining in the Mississippi River flood plain! Deer—excellent. Squirrel and rabbit—good. Waterfowl—fair (improves to excellent during high rainfall periods). Entrance via Hwy. 84. Good interior roads. No camping.

Fort Polk Wildlife Management Area: 114,000 acres of forest and open lands owned by the U.S. Forest Service and the U.S. Army in central Vernon Parish. Gently rolling hills; pine and hardwood strips. Quail—excellent. Deer, squirrel, and woodcock—good. Turkey cannot be hunted. Rabbit and dove—fair. Unmarked hogs. Daily military clearance, available from Provost Marshal's Office, required to hunt on this area, except when clearance can be obtained at commission daily permit stations during either sex deer seasons. Entrance via Hwy. 10. Interior roads excellent. No campgrounds.

Georgia-Pacific Wildlife Management Area: 28,000 acres 5 miles northwest of Bastrop. Gently rolling hills; flat mixed-pine hardwoods. Deer, turkey, quail—good. Squirrel, rabbit, dove, and duck—fair. Access via Hwy. 592. Interior roads maintained, but high rainfall causes flooding. Waterproof footwear a must. No campgrounds.

Grassy Lake Wildlife Management Area: 11,800 acres in Avoyelles Parish. Predominantely wetland habitat. Deer, squirrel, rabbit and waterfowl populations present—accessibility is difficult. No permits required. Tract is a wilderness area—no all-weather roads are available. Access via boat down the Red River, a 15-mile trip. During dry periods, a woods road from Bordelonville off Hwy. 451 may be used to travel to the interior. No campgrounds.

Jackson-Bienville Wildlife Management Area: 30,900 acres 12 miles south of Ruston. Predominantly pine timber; some hardwoods. Deer—excellent. Squirrel and woodcock—good. Quail—fair. Unmarked hogs. Thirty miles of improved access roads; several miles of bush-hogged hunter trails. Camping on designated areas—one campground complete with water and outdoor toilets. (Jackson-Bienville has the best hunter success ratio in the state for deer).

Lacassine Wildlife Refuge: a federal refuge in Cameron Parish just northeast of Grand Lake. Provides waterfowl hunting each season. For further information contact the U.S. Fish and Wildlife Service, Lacassine National Wildlife Refuge, Lake Arthur, LA. Marshland—31,125 acres.

Loggy Bayou Wildlife Management Area: 2,643 acres south of Shreveport. Bottomland hardwood terrain. Excellent game producing area. Rabbit—excellent. Squirrel and quail —fair. Deer hunting—good. Camping on designated areas. Campgrounds also available in Shreveport.

Lutcher-Moore Wildlife Management Area: 54,269 acres 15 miles southwest of Leesville. Upland areas; slash pine. Rolling hills interlaced with creeks. Hardwoods along water courses. Poorly drained flats in the southern sectors. Excellent quail hunting. Deer and woodcock—good. Squirrel, rabbit, and dove—fair. Turkey are not hunted. Access via Hwy. 28; entrances marked. Good interior roads. Camping on designated areas.

Manchac Wildlife Management Area: 5,200 acres in St. John Parish between Lakes Pontchartrain and Maurepas. Marshland terrain. Duck, snipe, rail, and gallinule—good. Rabbit and woodcock—fair. Deer—poor. Entrance by boat only off Hwy. 55 at Manchac via Pass Manchac or North Pass. Interior lacks major waterway network. Limited high ground. No camping permitted at this time.

Pass-A-Loutre Waterfowl Management Area: 66,000 acres at the mouth of the Mississippi River. Waterfowl marsh; floating islands of marsh vegetation. Waterfowl hunting only. No permits required. Access by boat via the Mississippi River. Area is 13 miles downriver from Venice, which is at the southern end of Hwy. 23. Camping allowed along the Mississippi Levee and oil company spoil levees.

Pearl River Wildlife Management Area: 26,986 acres in St. Tammany Parish. River swampland. Turkey—excellent. Deer and squirrel—good. Rabbit—fair. Unmarked hogs. Experimental raccoon season. Highway access excellent; I-10 bisects the tract. Interior access largely by small outboard boat. Camping on designated areas—one campsite on the west side of the area is opened for public use (Crawford's Landing).

Peason Ridge Wildlife Management Area: 33,488 acres in Vernon, Natchitoches, and Sabine Parishes. Pine-with-hardwoods. Quail—excellent. Woodcock—good. Deer, squirrel, rabbit, dove—fair. All hunting by season permit and military clearance. Entrances via Hwys. 117 and 118. Fair roads within the interior. No campgrounds.

Point-Au-Chien Wildlife Management Area: 28,243 acres approximately 15 miles southeast of Houma. Slightly brackish marsh; timber stands adjacent to natural bayous and oil company levees. Deer, rabbit, squirrel, rail, and waterfowl—good. Morning hunting only for waterfowl. Rabbit hunting with beagles allowed after waterfowl season closes. Access by driving to Point-au-Chien from Houma on Hwys. 55 and 65. Boat ramp at the end of the road at Point-au-Chien. Marine access through Grand Bayou and St. Jean Charles Canal. No campgrounds.

Red Dirt Wildlife Management Area: 38,555 acres in south-central Natchitoches Parish. Pure pine with narrow stands of hardwoods along stream bottoms. Deer, squirrel, and quail—good. Rabbit and woodcock—fair and limited to stream bottoms. Unmarked hogs. Entrances via Hwy. 1 on the east, and 171 on the west. Interior roads maintained. Camping on designated areas.

Red River Wildlife Management Area: 17,804 acres in southern Concordia Parish. Varied terrain. Deer—excellent. Squirrel and rabbit—good. Waterfowl hunting—good. Turkey being stocked. Access from Hwy. 15 onto Red River levee. No roads within the interior. Camping on designated areas—35 acres of campgrounds with water and four comfort stations are available.

Russell Sage Wildlife Management Area: 14,600 acres 10 miles east of Monroe. Pure bottomland hardwoods. Deer, rabbit, and squirrel—good. Greentree reservoir contains 2,000 acres of good duck habitat. Experimental raccoon season. Entrances via I-20 and Hwy. 80. Interior roads maintained. Camping on one designated area just north of Hwy. 80 near the western boundary.

Sabine Wildlife Management Area: 10,500 acres near Zwolle in Sabine Parish. Hilly pine land; sparse hardwoods in stream bottoms. Quail and woodcock—good. Deer and squirrel—fair. More hunter interest would improve area. Entrance via Hwy. 171. Interior roads maintained. Camping on designated areas.

Sabine Island Wildlife Management Area: 8,103 acres in west-central Calcasieu Parish. Mostly wetland habitat; some bottomland hardwoods. Rabbit—good. Deer, squirrel, duck—fair. Morning hunting only for ducks. Entrance via Hwy. 109; interior access mainly by boat. No major roads on the tract. No campgrounds.

Sabine Wildlife Refuge: a federal refuge in west-central Cameron Parish between Sabine and Calcasieu Lakes. Provides waterfowl hunting. For details contact the U.S. Fish and Wildlife Service, Sabine National Wildlife Refuge, MRH Box 107, Sulphur, LA. Marshland—142,717 acres.

Saline Wildlife Management Area: 60,275 acres in lower LaSalle and Catahoula Parishes. Mixed bottomland hardwoods interlaced with numerous bayous and sloughs. Deer—excellent. Squirrel, rabbit, and woodcock—good. Unmarked hogs. Greentree reservoir provides excellent waterfowl hunting. No turkey hunting. Entrance via Hwy. 28. Interior gravel roads maintained. Camping on designated areas—160-acre campground at the extreme southern end of the tract.

Salvador Wildlife Management Area: 27,500 acres in St. Charles Parish. Freshwater marsh type; numerous ponds; cypress stands along the northern extremity. Deer, rabbit, squirrel, rail, and waterfowl—good. Morning hunting only *for all game species.* Access via (1) Bayou Segnette from Westwego into Lake Cataouatche; (2) Seller Canal to Bayou Verret into Lake Cataouatche; and (3) Bayou Des Allemands to the south-west end of the area or on into Lake Salvador and back into the area from Bayou Couba and Lake Cataouatche. Interior access only by boat. No campgrounds.

Soda Lake Wildlife Management Area: 1,300 acres 15 miles north of Shreveport. Designed specifically for waterfowl. Hipboots and waders essential. The lake is shallow and easy to wade. Access via Hwy. 1. No roads within the area. No campgrounds.

Spring Bayou Wildlife Management Area: 11,600 acres in northern Avoyelles Parish. Bayous and sloughs—40 percent of the tract lies underwater. Rabbit—excellent. Deer and waterfowl—good. Squirrel and woodcock—fair. Entrance via Hwy. 452 onto Spring Bayou Road; by boat via public launching ramp off Hwy. 1 northeast of Mansura. Interior travel by boat only. Camping on designated areas—one improved campground at Boggy Bayou on the north end of Spring Bayou.

Thistlethwaite Wildlife Management Area: 11,000 acres in St. Landry Parish. Pure bottomland hardwoods with palmetto. Deer and squirrel—excellent. Rabbit and woodcock—good. Waterfowl—fair. Unmarked hogs. Entrance via Hwy. 10; clearly marked. Thirty-five miles of interior roads. No campgrounds.

Three Rivers Wildlife Management Area: 16,731 acres 10 miles south of Shaw. Predominantly hardwood forest; low and poorly drained. Deer—excellent. Duck and snipe—excellent. Squirrel, rabbit, and woodcock—good. Access via Hwy. 15 on the east and by boat via the Red River on the west. Ten miles of interior roads. Camping designated on two campgrounds.

Union Wildlife Management Area: 12,397 acres 3 miles west of Marion. Rolling pine hardwoods; spring-fed streams. Deer—excellent. Squirrel, rabbit, dove, and woodcock—fair. Access via Hwys. 549 and 551. Interior roads maintained. No campgrounds.

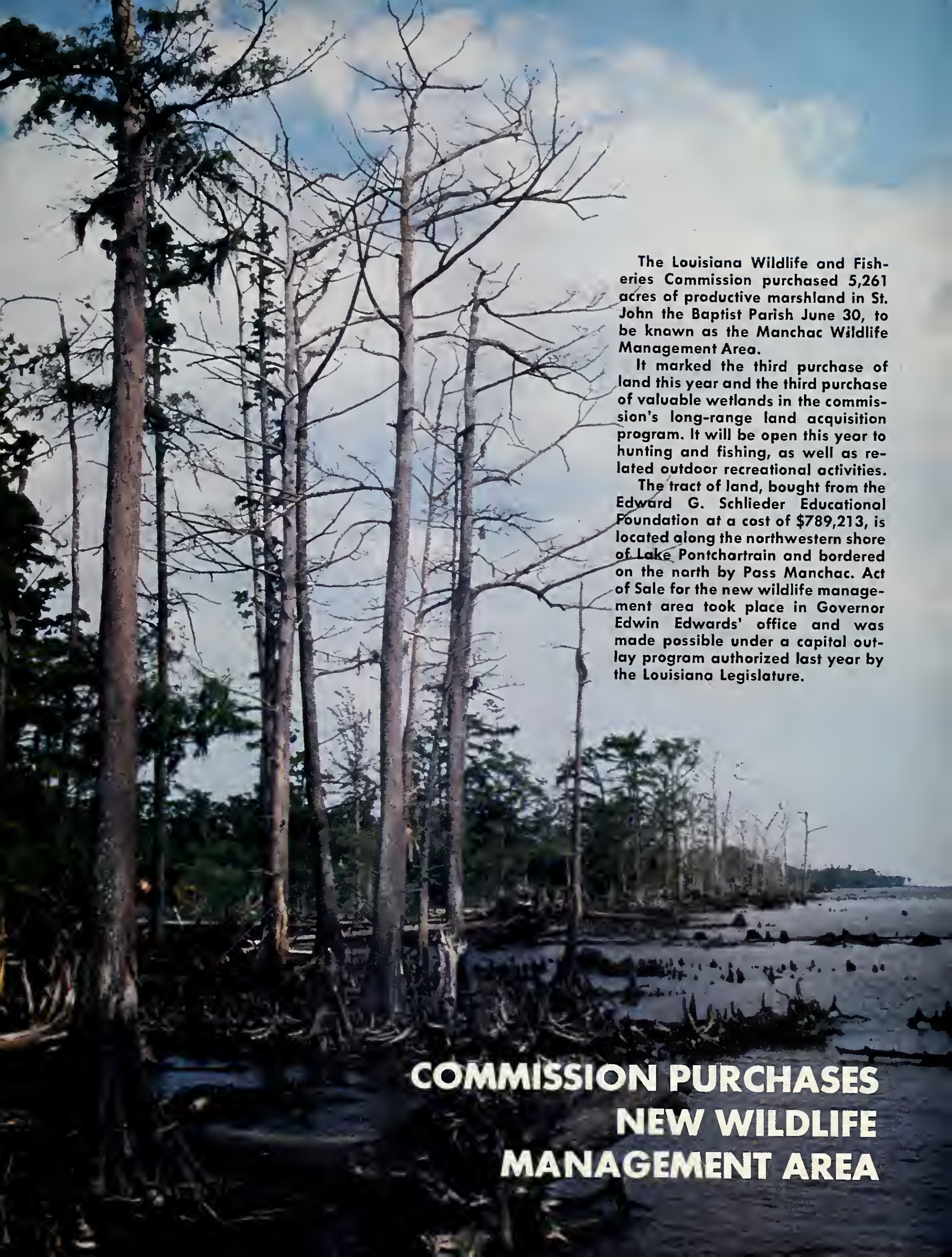
West Bay Wildlife Management Area: 55,185 acres in Allen Parish. Planted pine plantations to pure mature hardwood stands. Deer and squirrel—good. Rabbit and quail—fair. Closed season on turkey. Entrances via Hwys. 10, 26, and 112. Within the area are 350 miles of maintained roads. Camping on designated areas—provided with water.

Wisner Wildlife Management Area: 26,300 acres in Lafourche Parish between Leeville and Grand Isle. Dominantly marsh with a network of connecting bayous, ditches, and lagoons. Rabbit—excellent. Dove—good. Duck, rail, and snipe—fair. Access by boat from a free launch on Hwy. 3090 south of Hwy. 1, from Hwy. 1 into Bayou Moreau two miles west of Caminada Bay, or from the boat launching site at Leeville on Hwy. 1. No campgrounds.

Put an Indoorsman in your shoes

For purposes of this message, an indoorsman is anyone who is not an outdoorsman—not a hunter or fisherman, for example. There are about 55 million outdoorsmen in the United States—but there are over 150 million indoorsmen. By sponsoring National Hunting and Fishing Day programs on September 27—and by making sure that there will be plenty of indoorsmen on hand to take part—you can make major strides in giving these people a better understanding of the sportsmen's involvement in conservation. The results will be a brighter future not only for hunting and fishing, but for conservation as well.

National Hunting & Fishing Day September 27, 1975



COMMISSION PURCHASES NEW WILDLIFE MANAGEMENT AREA

The Louisiana Wildlife and Fisheries Commission purchased 5,261 acres of productive marshland in St. John the Baptist Parish June 30, to be known as the Manchac Wildlife Management Area.

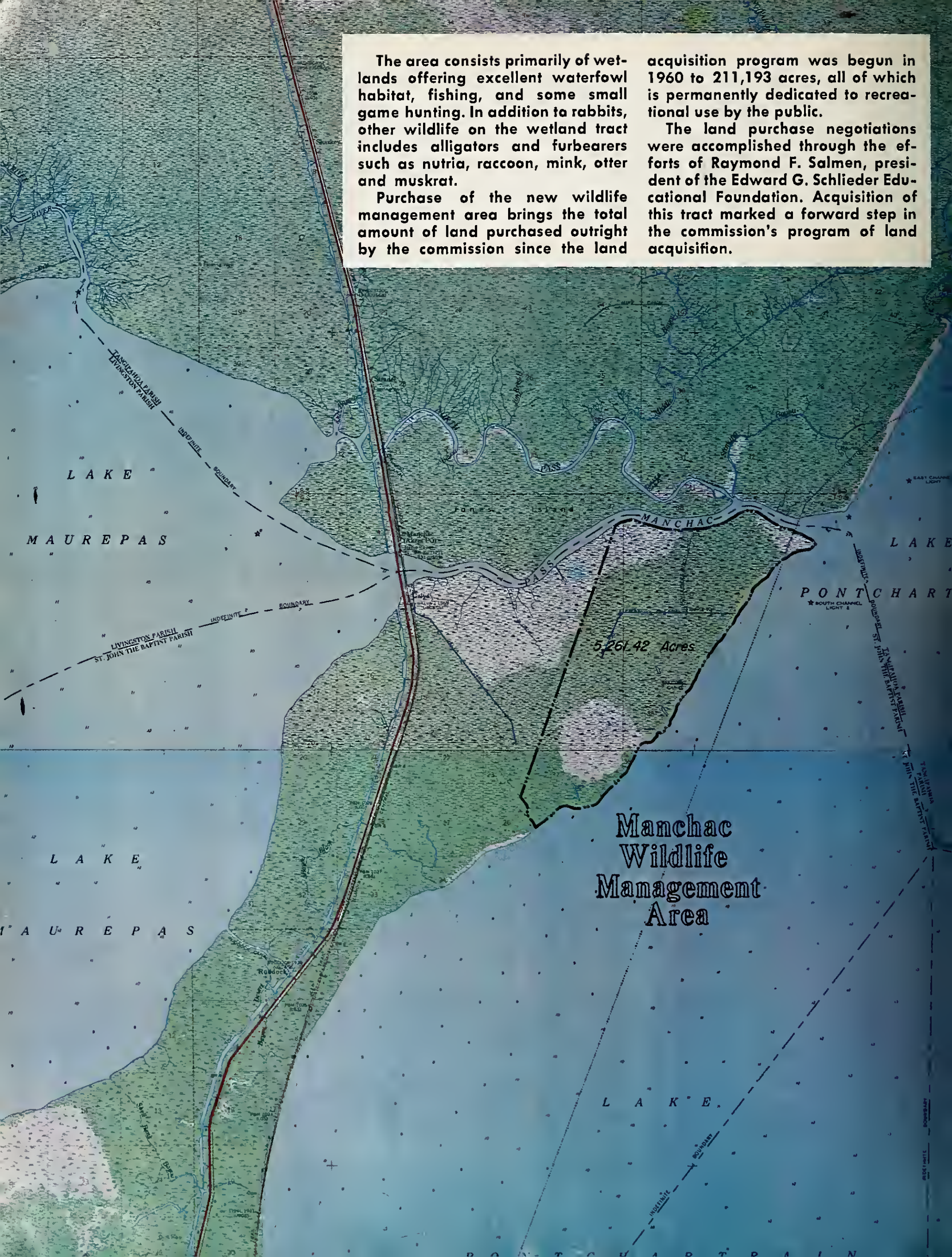
It marked the third purchase of land this year and the third purchase of valuable wetlands in the commission's long-range land acquisition program. It will be open this year to hunting and fishing, as well as related outdoor recreational activities.

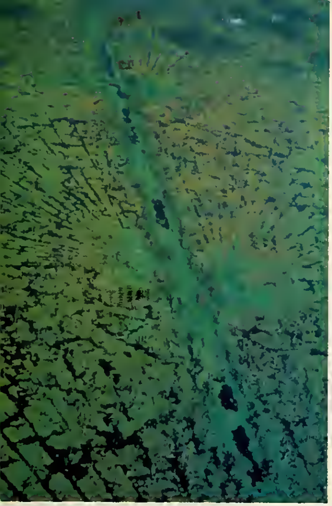
The tract of land, bought from the Edward G. Schlieder Educational Foundation at a cost of $789,213, is located along the northwestern shore of Lake Pontchartrain and bordered on the north by Pass Manchac. Act of Sale for the new wildlife management area took place in Governor Edwin Edwards' office and was made possible under a capital outlay program authorized last year by the Louisiana Legislature.

The area consists primarily of wetlands offering excellent waterfowl habitat, fishing, and some small game hunting. In addition to rabbits, other wildlife on the wetland tract includes alligators and furbearers such as nutria, raccoon, mink, otter and muskrat.

Purchase of the new wildlife management area brings the total amount of land purchased outright by the commission since the land acquisition program was begun in 1960 to 211,193 acres, all of which is permanently dedicated to recreational use by the public.

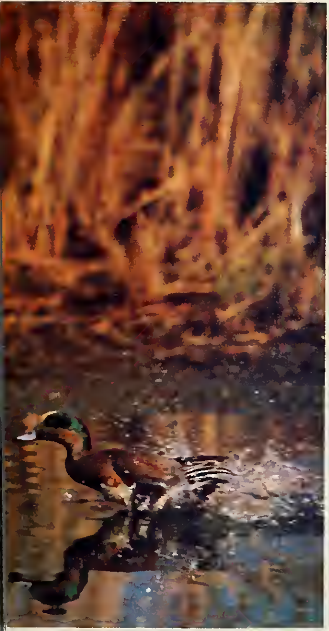
The land purchase negotiations were accomplished through the efforts of Raymond F. Salmen, president of the Edward G. Schlieder Educational Foundation. Acquisition of this tract marked a forward step in the commission's program of land acquisition.





Primarily scenic wetlands, Manchac Wildlife Management Area is ideally suited for waterfowl and is widely used by numerous species of ducks during winter months. Aerial photograph (upper left) shows lacelike symmetry of "star canals" created when virgin cypress logs were dragged to a central collection point.

Photography by Lloyd Poissenot



Participating in the Act of Sale for the Manchac Wildlife Management Area were members of the Louisiana Wildlife and Fisheries Commission. Shown from left are: Jerry G. Jones, Jimmie Thompson, and Donald Wille (commission members), Gov. Edwin Edwards, J. Burton Angelle (commission director), Marc Dupuy, Jr. (commission member), and H. Clay Luttrell (commission chairman).

The new area will be open to public hunting during the approaching 1975-76 hunting seasons, and regulations for Manchac Wildlife Management Area will be found in the Digest of Hunting and Fishing Regulations now being prepared for printing.

Manchac Wildlife Management Area received its name from both Pass Manchac, which links Lake Maurepas with Lake Pontchartrain, and from Bayou Manchac. The bayou formerly connected the Mississippi with Lake Maurepas. It was called Ascantia by the Indians, Iberville by the early French, and finally Manchac during Spanish Domination. Iberville explored the countryside in this area in 1699.

At one time Fort Bute, named for the third Earl of Bute, Prime Minister of England at the time West Florida (the Florida parishes of Louisiana) came under British control, stood at the mouth of Bayou Manchac. The entire area is rich in historical lore.

The nature of the terrain makes it a valuable addition to the commission's wildlife management area system.

Teal...

Success Story Louisiana Style

by Hugh Bateman

Waterfowl Research Biologist

Ten years ago, back in 1965, the first of three September teal seasons was scheduled for states in the Mississippi and Central flyways. That initial season was a landmark for modern-day waterfowl management, since the 9-day affair was designed to direct hunting activity at a single species of duck—the blue-winged teal.

September hunting seasons on teal had no precedent; there was no background for hunting and no one actually knew what effect such a hunt would have on teal or other waterfowl poulations. In essence, represented was an experiment in the area of "species" management, and naturally there was some apprehension because of the unknowns involved. So the first three years of September teal hunting (1965, 1966, and 1967) were appropriately termed "experimental" seasons.

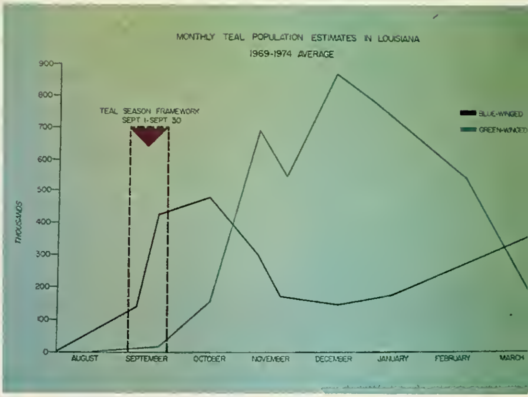
Basis and logic for allowing a special season carefully was planned around a backlog of biological information gathered by state wildlife departments during the mid-1950's. Periodic aerial surveys of waterfowl populations and their migrational patterns revealed that the 10 to 12 million blue-winged teal that migrate south each fall move rapidly through the Central and Mississippi flyways in August, September, and October toward major wintering grounds in Mexico, Central America, and South America.

Only a fraction of these teal, usually less than 200,000, ever remained to over-winter in the United States, primarily along the gulf coasts of Louisiana and Texas. Surveys clearly showed that the bulk of these ducks were moving out of each state in a progressive migration toward the south ahead of the opening of their regular duck season. Even northern states that opened seasons prior to October 10th were taking only trailing edges of each fall's quickly fading blue-winged teal flight. Consequently one of North America's most abundant ducks was absorbing very little hunting pressure in the United States.

Estimates based on population and harvest information indicated that hunting was removing only 2 or 3 precent of the total number of blue-winged teal each year, and that hunting mortality for blue-wings was the lowest among popular game ducks, leaving room for additional harvest opportunity.

Motivated by this information the Mississippi and Central flyway states, particularly Louisiana, began prodding the then Bureau of Sport Fisheries and Wildlife in the late 1950's to allow a carefully controlled and restrictive hunting season to determine the effectiveness and merit of September teal hunting. A special experimental season for 1965 finally was approved.

As a practical matter, both green-winged and cinnamon teal were asked to be included as legal ducks during the September seasons because it would be unreasonable to expect hunters to identify various species prior to the development of fall breeding plumage. Additionally the prediction was that the harvest of both cinnamon and green-winged teal during September hunts would be small—green-wings move south later than their blue-winged cousins and are not available to



The chart reveals that blue and green-winged teal exhibit entirely different migrational patterns into Louisiana each fall. Green-winged teal do not show up in substantial numbers until after the September season is over.

Both blue and green-winged teal are especially fond of small seeds of grain. Flooded rice stubble and stands of natural marsh grasses such as wild millet are attractive to teal in September.

United States hunters in large numbers during September and the cinnamon teal is confined primarily to the Pacific flyway where there was no teal season.

In order to obtain as much information as possible about the effects of the September hunts, the first three teal seasons were highly regulated. Special permits were required and state wildlife agencies carried out extensive teal banding programs as well as education and publicity campaigns directed toward duck identification. Each season law enforcement efforts and hunter bag checks were carried out on a larger scale than ever before.

As it turned out, the 1965, 1966, and 1967 experimental teal seasons were a tremendous success in the middle and southern tier of states in the Central and Mississippi flyways. Unfortunately, the northern states that are major breeding areas for blue-winged teal and other species of ducks found that September hunting presented some serious problems caused by a large percentage of non-teal ducks present and a high incidence of flight teal during early September. Minnesota, for example, did not participate in the September seasons after 1965.

An evaluation of information gathered during the experimental seasons of 1965, 1966, and 1967 clearly indicated that September teal seasons were biologically sound for the southern and some mid-continent states. Texas and Louisiana, with vast expanses of marsh and rice land available to attract and hold large numbers of blue-winged teal were especially suited to benefit from September teal hunting.

All three species of teal are legal during the September season. Above are blue-wing, cinnamon, and green-winged species taken in 1970. Early fall plumages are poorly developed, making identification difficult. September teal seasons are popular in the Bayou State, with an estimated 20-30 thousand hunters bagging about 100 to 150 thousand teal each season.

It was determined that with September hunting, the total harvest of blue-winged teal had been increased substantially. The rate of hunting mortality, however, remained low, and the September and regular season bag combined accounted for only 6 or 7 percent of the estimated fall populations of blue-winged teal.

Put to rest also were fears concerning the kill of green-winged teal during these seasons. Hunter bag checks and mail surveys indicated that blue-winged teal were accounting for 80 to 90 percent of the teal bag in most states. The few green-winged taken were predominantly adult males and of little concern in regard to the total population.

There were, of course, a few illegal ducks shot during each teal season, some due to inexperience and some due to a simple disregard for the regulations. Fortunately, the over-all problem of taking illegal ducks was small and the number involved was minor when compared to the number of teal bagged. Illegal species of ducks shot during the three experimental teal seasons were predominantly wood ducks which made up less than 1 percent of the total ducks bagged. In the opinion of many state and federal enforcement agents, violations during the September teal seasons were no more flagrant or serious than during regular ducks season.

In essence, the experimental teal seasons had accomplished what they were designed to do. A formerly under-utilized resource was made more available to hunters, several hundred thousand man-days of hunting recreation were generated, additional support for waterfowl management programs and wetland habitat preservation had been gained, and no adverse effects or problems had been created for teal or other waterfowl populations.

Unfortunately, this new (and popular) concept in waterfowl hunting ran into trouble early in 1968 when flyway council decisions were being rendered on the coming fall's duck seasons. Mounting pressure from a few northern states who viewed the success of September teal seasons with perhaps some sincere alarm but also perhaps with some jealousy, prevailed within the Mississippi Flyway Council. By a narrow margin they voted to halt further September teal seasons.

Although evidence available was overwhelmingly in support of continuing September seasons, all efforts failed to have the 9-day teal hunt for 1968 reinstated.

This one particular incident more than any other (and there have been problems over the years with the Mississippi Flyway Council) so angered and frustrated the Louisiana Wildlife and Fisheries Commission that in July of 1968 the commission voted unanimously to withdraw from the Mississippi Flyway Council. That drastic action reflected fully how important the September teal season had become and how strongly Louisiana felt it should be continued.

In 1969, the teal season was again resumed in states in the Mississippi and Central flyways. As an alternative to the 9-day September hunt, states also had the option of selecting a bonus of 2 blue-winged teal during the first 9-day of their regular duck season. The 9-day September teal season has continued basically unchanged each year since 1969.

Distinct breeding plumage of adult male blue-wings is not evident in Louisiana until November or later. During teal season, both males and females are similar in coloration.

Although there are still "rumblings" in the background, the season is now operational and a regular part of the annual regulations. No special teal permits have been required since 1967, and presently Louisiana teal hunters who have reached their 16th birthday must have only a *signed,* valid Migratory Bird Hunting Stamp (Duck Stamp) and Louisiana hunting license.

In the Bayou State during the 1965, 1966, and 1967 experimental teal seasons, about 40,000 permits were issued each year, but only half or less of the potential hunters were active. Total teal bagged ranged from 66,000 in 1965 to 167,000 in 1967, with hunter success ranging from 4 to nearly 6 teal per season. In recent years, the number of teal hunters appears to have stabilized at about 25,000 active hunters who take an estimated 100,000 teal. Blue-winged make up over 90 percent of the kill, and illegal species taken remain a minor portion of the total ducks bagged. In Louisiana, the most significant factor affecting the participation and success of teal hunters is local weather and water conditions, with severe problems associated with tropical storms.

This year's teal season has been set for September 20th through the 28th. Daily bag limits remain the traditional 4 blue-winged or green-winged teal in the aggregate with a possession limit of eight. Shooting hours are from *sunrise to sunset* daily, and taking of other species is strictly prohibited. The zones proposed for the *regular* duck season *will* not be in effect for the teal season. Above dates and bag limits will be used statewide.

Prospects for this year's season in Louisiana are good, especially in the rice fields of southwest Louisiana. Blue-winged teal experienced what is considered an excellent production year on the breeding grounds, and flights of ducks should be substantially improved over last year. Given a reprieve from our recent problems with tropical storms, this coming September's teal season should be another success story . . . Louisiana style.

The Game Management Story... In Perspective (Part Two)

SPORT HUNTER
MARKET HUNTER
THE LAST NAME IS THE SAME BUT THEY'RE DEFINITELY NOT RELATED.

Sport hunting is recognized as a legitimate use of surplus wildlife by state and federal laws traceable in origin to the Magna Carta. These same laws establish the rights of the states to control the activities of hunters. Hunting is now regulated under comprehensive laws in every state. These are supplemented by federal laws applying to certain species, including migratory birds, and to the interstate shipment of wild animals and their products.

This was not always the case. Before the turn of the century, restrictions on shooters were few, and those laws that existed were poorly enforced, when enforced at all. In the early days, when the pioneer philosophy prevailed and many Americans lived off the land, nearly all edible or useful forms of wildlife were taken almost without restrictions at any time. "Useful" meant any bird or mammal that could be eaten or sold for its meat, feathers, fur, or other parts.

The brutalities historically attributed to hunters—the slaughter of the buffalo, the decimation of the sea otter, the extermination of the passenger pigeon, and others—involved mainly paid butchers who had no relationship at all with the modern sport hunter. The common use of bird plumage to decorate ladies' hats in the Gay Nineties and early 1900's nearly doomed the egrets and other plume-bearing birds before state and federal laws backed by firm enforcement checked their slaughter. Until comparatively recent times, any birds or mammals that eat meat—from sparrow hawks to gizzly bears—were considered enemies of the farmer or rancher and subject to killing on sight. Massive poisoning and trapping campaigns, largely by federal agents and professional hunters employed by livestock organizations, wiped out the prairie wolves and greatly reduced the numbers of cougars and bears. Now, these abuses, which were stimulated by economic concerns, have been substantially checked by a growing public appreciation of the many values of predators and of wildlife in general.

From the standpoint of wildlife conservation, hunting must be judged solely on its effect on the species of animals hunted. The fact that many designated game species have increased steadily in numbers over the years, in spite of growing numbers of hunters with greater mobility, testifies to the effectiveness of scientific wildlife management. It also shows that the carefully regulated modern hunter has no long-term negative effect on the comparatively few wildlife species he pursues. This conclusion is based on research in many regions of the country. Therefore, with properly regulated sport hunting having no adverse effects, the decision of whether to hunt or not to hunt is a matter of personal choice.

As with any large representative group of Americans, there are among hunters a minority who fail to abide by the laws and rules of sportsmanship. These people, when their activities are not checked by effective law enforcement and the disapproval of the public—especially by sportsmen—can have undersirable impacts on local wildlife populations and create unfavorable reactions to hunting and hunters.

Regulated hunting, however, properly applied, is an important tool of wildlife management. The annual cropping of grazing and browsing animals whose populations are near carrying capacity lowers the annual loss from disease and malnutrition. It prevents the animals from becoming so numerous that they deplete their own food supplies and the food and cover upon which other species depend. Wild populations that are below carrying capacity are far healthier and produce more young than those at or near the capacity of the range.

Virtually all of this essential wildlife management is financed by funds obtained from sportsmen. By purchasing required federal duck stamps. waterfowl hunters annually contribute around $10 million to federal waterfowl and wetland conservation programs. Like any other citizens, of course, sportsmen also pay federal income taxes that support national wildlife and allied resource programs. But more important, their license fees and special taxes provide about a quarter of a billion dollars each year for the basic support of the state fish and wildlife conservation programs. Few state wildlife agencies receive funds from the general public.

Sportsmen also contribute to wildlife conservation through private organizations. Many local and state sportsmen's organizations have active cooperative programs that maintain and increase wild populations on private lands without cost to the public. Ducks Unlimited, an association of waterfowl hunters, has created or restored more than 1,000 Canadian waterfowl production areas covering more than 2 million acres. These critical wetlands provide habitat for more than 200 species of wildlife.

Sportsmen's state hunting and fishing license fees are used to buy, maintain, and improve wildlife habitat that benefits both hunted and unhunted wildlife on public and private lands and to provide the modern equipment needed to enforce laws for the protection of wildlife. They make it possible to employ many thousands of managers, biologists, and conservation officers to protect and care for wildlife. Many state wildlife agencies own or control large land holdings that are managed intensively to maintain wildlife populations at desirable levels.

Some critics of the American system of wildlife management have charged that because hunters and fishermen carry the financial burden of wildlife conservation, the state agencies favor game species in their programs and ignore nonhunted species. This overlooks the fact that many state wildlife agencies have excellent nongame wildlife programs. Habitat created or maintained for pheasants or quail additionally benefits a wide range of nonhunted species, from meadowlarks to hawks and owls. Most serious birdwatchers know that some of the best birding is found on state wildlife management areas and refuges. Waterfowl management areas provide food and cover for a host of nongame species, ranging from marsh wrens to ospreys and eagles.

While most state wildlife agencies would welcome financial support from the general public, state legislators have been reluctant to supplement fishing and hunting license revenues with general fund appropriations. In 1937, a federal law, the Federal Aid in Wildlife Restoration Act, was passed by Congress. It allocated to the state fish and wildlife agencies receipts from an existing 11 percent excise tax on sporting firearms and ammunition for the purpose of conducting approved projects of wildlife research, land acquisition and development, and restocking of unoccupied habitats. To qualify for this assistance the states had to pledge all hunting and fishing license funds to conservation purposes. Before that time it was common practice for state legislatures to divert income from hunting and fishing licenses for schools, highways, and other public works, while the state wildlife agency obtained only a part of the funds for actual use for fish and wildlife conservation.

Until state legislatures show more willingness to support wildlife programs with revenues from other sources, sportsmen will continue as the principal source of financial support for wildlife conservation. The reluctance of the general public and state legislatures to support necessary conservation programs overlooks the great social and economic benefits of sound wildlife management.

Individuals and groups interested in wildlife should bear in mind the animal's basic need for habitat. Secondly, they should seek to strengthen the state-federal system to assure the well-being of all wildlife. Distortion of the true facts with respect to America's wildlife only misleads the public. Further, it confuses lawmakers, who, in their efforts to respond to public concerns, sometimes resort to well-intentioned but ineffective remedies. The best thing that could happen to wildlife would be for all concerned Americans to join hands in working for truly needed programs. In this way, they would assure that adequate and effective steps are taken to restore depleted species and to prevent others from becoming endangered.

To clearly understand endangered wildlife, it is necessary to know some technical terms that are widely used but imperfectly understood.

Congress enacted Endangered Species Conservation Acts in 1966, 1969, and 1973 to help check the decline of America's rarer forms of mammals, birds, fish, reptiles, amphibians, invertebrates, and plants. These legal mandates are administered through an Office of Endangered Species in the U.S. Fish and Wildlife Service.

Legal definitions used in these Acts do not always conform with strict dictionary definitions. Under terms of the Acts, a species or subspecies is *endangered* when officially declared in imminent danger of extinction by the Secretary of the Interior after consultation with scientists. *Threatened* species are those officially declared likely to become endangered in the foreseeable future over all or a "significant portion" of their ranges. Lists of these animals, amended periodically, are published in government documents.

A *species* in the scientific sense, is a group of animals sharing common characteristics that are passed on to their offspring and whose members can produce fertile young only by mating within their own group. A *subspecies* is a group of animals of the same species that has developed common distinctive characteristics because they evolved in isolation from other subspecies of the parent species. Differences may include color, size, or bone structure. Although the differences are artifically maintained, an extreme example can be found in the variety of breeds in the domesticated dog. Among wild animals, some subspecies differ so much from others of the same species that the layman would consider them unrelated. But members of different subspecies can interbreed and produce young that are capable of successful breeding.

As used in the Endangered Species Acts, the term "species" includes various subspecies. Even scientists and writers who know the distinction often refer loosely to subspecies as "species." This leads to public confusion. The official Endangered Species List may include a localized subspecies that is represented elsewhere by other abundant and widely distributed subspecies. This often leads the public to believe that the entire species is endangered when only a small population segment is in trouble. The endangered Delmarva fox squirrel, for example, is confined to a small area in eastern Maryland and Virginia. But other kinds of fox squirrel are common to abundant in the southeastern and midwestern United States.

Forty known kinds of birds and mammals native to the United States and its territories have become extinct: 109 animals, of which 64 are birds and mammals, have been declared endangered by the Secretary of the Interior.

At face value these figures are alarming. But the situation in North America is not that bleak. Only six of the 32 extinct species and subspecies of birds were native to the North American mainland. Most were native to Hawaii.

Species and subspecies that have evolved in restricted island habitats are especially vulnerable. They depend for survival upon unique and fragile ecosystems that change dramatically with any intrusion of man. Evolution in isolation has equipped few island species to cope with introduced predators, such as house cats, rats and mongooses, or to resist introduced diseases.

Civilized man has brought wild and domesticated birds and mammals from his homeland to every island he has settled. Native animals usually are unable to compete with the more aggressive invaders. Grazing and foraging by sheep, cattle, goats and pigs often destroy vital wildlife habitats. Since its discovery, 40 percent of Hawaii's original forms of birds have become extinct, and another 40 percent are endangered, largely because of inadvertent human influences.

A large majority of the endangered animals and those that have become extinct were island species, literally or figuratively, in that their restricted habitats were surrounded by terrain unsuitable for their survival. Of the eight extinct North American mammals, two were meadow mice or voles. One was confined to a single small island in Long Island Sound; the other occupied an isolated marsh in California. The range of the heath hen was reduced to one island off the coast of Massachusetts soon after the American Revolution. In spite of 50 years of total protection, it became extinct in 1932. The population had been built to nearly 2,000 in the late 1920's when fire swept its nesting grounds at the height of the breeding season. Introduced poultry diseases eliminated the survivors.

Today, the heath hen's close relative, the Attwater's prairie chicken, occupies a similar vulnerable habitat on a small section of the Gulf Coast of Texas. The natural grasslands that it needs were much reduced and are now surrounded by cultivated lands and heavily grazed pastures.

Habitat factors even played a role in the fate of species that were destroyed or reduced to remnants principally by direct, deliberate killing. Commercial netting was a major cause of the extinction of the passenger pigeon. But the clearing of the northern hardwood forests for agriculture concentrated the nesting colonies and the activities of the netters. Steller's sea cow was butchered to extinction by Russian seal hunters before the American Revolution. The great auk, which became extinct in 1844, was slaughtered on its nesting grounds by whalers for its eggs, plumage, and oil. All of these animals gathered in dense breeding colonies that made their killing easy. All were destroyed by unregulated commercialism long before there was more than rudimentary public sentiment for wildlife conservation.

The Badlands bighorn sheep, Merriam's elk, and eastern elk were decimated by meat-seeking settlers, prospectors, and market hunters before 1910. All occupied restricted and vulnerable habitats, and all suffered from competition with livestock and agriculture. State and federal wildlife agencies have introduced closely related subspecies of bighorn and elk to the original range of the first two animals. Most of the range of the eastern elk has been taken over by agriculture, but elk of closely related subspecies have been restored to Virginia and Michigan.

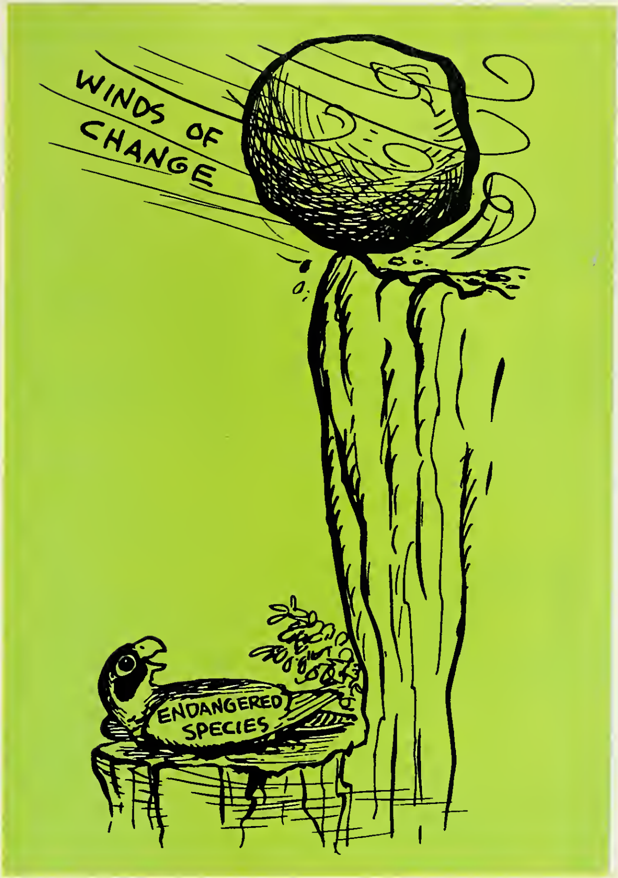
Modern sport hunting, as now regulated, has no relationship to the thoughtless commercial exploitation of wildlife of the past. The vast majority of the birds and mammals on the endangered list occupy highly specialized habitats. Some were not

WATERFOWL MANAGEMENT AREAS PROVIDE FOOD AND COVER FOR A HOST OF NON-GAME SPECIES.

abundant even in early times. Kirtland's warbler, a tiny migratory bird that nests only in Michigan, must have jackpines between 5 and 18 feet high to nest successfully. Historically, this habitat was created by naturally occurring forest fires. But foresters in their efforts to develop commercial timber excluded fire from the woods and nearly eliminated the bird's breeding habitat. Today, wildlife managers and foresters are using prescribed burning in special refuge areas to maintain jackpines at their most attractive stage of growth for the warblers.

The ivory-billed woodpecker needs large areas of old-growth forests, with their dead and dying trees. Forests of this kind are disappearing because of the accelerating demand for agricultural and timber products. The black-footed ferret, never an abundant species, was unthinkingly reduced to an endangered status by the widespread poisoning of its primary prey, the prairie dog.

Most predatory birds and mammals have been persecuted for centuries because of their threat—real or imagined—to livestock, poultry, fish and game. Now, when predators are more widely appreciated, new threats have arisen to plague these interesting animals. Persistent pesticides, notably DDT and related substances, are absorbed from the water in the tissues of fish and other aquatic animals. As large birds feed on fish and small animals low on the food chain, the contaminants concentrate in their tissues. The result is greatly reduced nesting success by larger fish-eating and predatory birds. The rapid decline of the bald eagle, peregrine falcon, and brown pelican is attributable primarily to pesticides.



Several species, like the ivory-billed woodpecker and Eskimo curlew, have been so reduced in numbers that there is little hope for their survival, if any still exist. But many animals now threatened or endangered could be restored to safe levels, if not abundance. This has already been demonstrated.

In 1935, trumpeter swans south of Canada were reduced to 73 on Red Rock Lakes and Yellowstone National Park in Montana. Since that year, when the Red Rock Lakes were declared a national wildlife refuge to protect the swans from irresponsible people and their habitat from intrusion, the population has responded well. Consequently, the trumpeter did not have to be included on the endangered species list. Other ancestral range in national parks and other western wildlife refuges support substantial breeding swan populations today. These resulted from the transplanting of surplus birds from the original refuge area.

Many other species that are threatened or endangered today could be similarly restored through intensive management. The know-how already exists in the modern wildlife management profession. All that are needed are public and political support, time, and adequate funds to apply this knowledge.

Next Issue
The Game Management Story
Part Three

Tournament Bass Catches Under Study

By

Kenneth E. Lantz and Dudley C. Carver

As Told To McFadden Duffy

Photography by Lloyd Poissenot

There has been a great increase in recent years in competitive bass fishing by professional anglers vying for fat money purses and non-professional anglers participating in bass rodeos with their fishing caps set for gleaming silver trophies or merchandise prizes. For pro bass anglers, the purses are steadily increasing and the number of annual tournaments is increasing also. The same is true of recreational-rodeo fishing for bass. Each year the number of participants increases.

Participants are interested in catch success and readily exchange ideas pertaining to bass fishing. They are aware of sometimes hostile public opinion concerning these tournaments and rodeos.

Bass rodeo participants are generally more concerned with how their biggest bass stack up on the weighmaster's scoreboard with other entries. A few anglers may observe the numerous individual catches of bass from which the winning fish are culled, but they have not expressed great concern. It is understandable because they are naturally excited at the chance of winning a bass fishing rodeo, and the remainder of the catch will not go to waste.

On the other hand, there are countless thousands of bass fishermen who are not professional tournament anglers, and who do not fish bass in the popular rodeos. They are concerned at the thousands of bass that are taken in several days of competitive fishing, whether it be by a couple of hundred pro fishermen or a thousand amateur rodeo anglers. They know that a tremendous number of bass are taken during these concerted angling efforts.

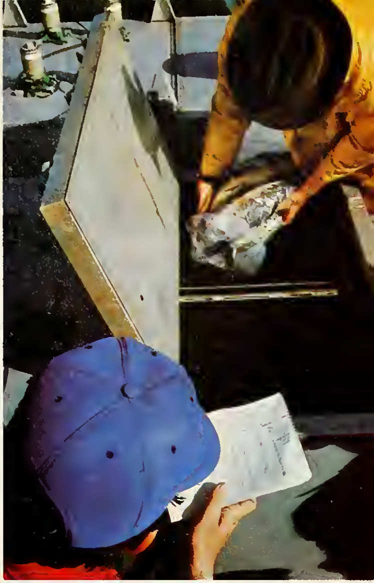
Aware of this budding adverse public opinion, B.A.S.S. initiated the "Don't Kill Your Fish" program. Since the program was begun, several investigators have evaluated this program in Florida, Georgia, Mississippi, and Texas. Methods and results of these studies varied greatly. Following careful review of literature on catch and release studies, it became obvious to fisheries personnel of the Louisiana Wildlife and Fisheries Commission that a need existed for additional study in Louisiana waters.

The March, 1975, B.A.S.S. fishing tournament scheduled for Toledo Bend Reservoir was selected to begin monitoring competitive fishing tournaments in the state. A list of objectives of the March study was compiled:

1. Determine catch rate of professional tournament fishermen.
2. Determine delayed mortality of tournament-caught bass held for an extended period of time in a small cove of the lake.
3. Measure the survival and dispersal of tagged bass released from a central release point.
4. Gather measurements of body length and weight, scales and reproductive characteristics of tournament-caught bass for the start of more detailed largemouth bass studies in Toledo Bend Reservoir.

The bass tournament was held at Toledo Bend on March 5, 6, and 7, with participation limited to 200 fishermen selected from the membership of B.A.S.S. The anglers were paired each day and fished competitively for three days. Objectives of the tournament were to determine which fisherman could catch the greatest poundage (based upon a 10 bass per day tournament creel limit), and the largest bass for the three-day event. Best catches were rewarded with cash and merchandise.

Emphasis was placed on live release of bass back into Toledo Bend



Teams of fisheries biologists weighed and measured bass and collected other data that would prove valuable in the overall study. Records were a vital part of the program.

following each weighing period. A bonus of one ounce was added to each contestant's daily catch per live fish brought in each day. Aerated live wells were required in each boat to aid in survival of fish. Participants and the sponsoring angling society cooperated fully. As soon as anglers moved into the weighing station area, tournament officials quickly determined the total number of bass caught by an angler, noted the number of live fish, made certain that the fish met the 12-inch minimum length required under tournament rules, and completed the catch forms.

The fish were then transferred to fisheries personnel of the Louisiana Wildlife and Fisheries Commission and placed in a waiting hatchery truck equipped with agitators and bottled oxygen. All fish that were dead, or were judged unable to upright themselves in the water were recorded as initial mortality and set aside for reproductive studies.

The live fish were taken by hatchery truck five miles from the tournament area to two release sites each day. One site served as a central release point for tagged fish, to evaluate dispersal and survival of the bass. Bass were tagged with a Floy anchor tag colored in International Orange. Each tag contained lettering indicating an identification number and an address for the Louisiana Wildlife and Fisheries Commission.

Length measurements were recorded for each tagged fish and scales were removed from a subsample of the fish. Fishermen were advised through the news media of tagged largemouth bass in Toledo Bend and the data needed concerning date of capture of a tagged fish, recovery location, tag number, and the general condition of the fish.

The second release site was a two-acre cove that had been blocked off with half-inch mesh webbing. The cork line was raised three feet above the water level with support poles to prevent movement of fish over the net. A portion of each day's catch of bass was released into the cove following length measurement and fin clipping, with distinguishing clips to indicate the date of release. Signs were posted around the cove advising the public not to disturb the area. Wildlife agents assisted fisheries personnel in keeping the study area from being molested.

Bass in the blocked off cove were held for 26 days. The cove was checked twice daily for dead or sickly fish. Underwater divers checked once each week to determine the condition of the block-off net, and to collect any dead or sickly fish on the cove bottom. Sick fish were examined for bacterial infection by the Microbiology Department of Northwestern State University at Natchitoches.

Some of the initial findings should prove of interest. As mentioned earlier, there were 200 professional anglers participating in the tournament. During three days of fishing, a total of 5,166 hours were spent angling by the contestants. They caught 2,955 bass, with a collective weight of 5,523.1 pounds. This averaged out to 0.57 fish and 1.07 pounds of bass per hour of fishing.

All bass destined for immediate release were loaded into well oxygenated tanks aboard trucks for transfer from the weigh station to designated test areas.

Total initial mortality of bass for the tournament (bass dead or dying upon arrival at the weighing station) was 102 fish. This amounted to 5.2 percent of the catch. It is significant to note that the highest initial mortality occured the third and final day of the tournament, when 77 fish were dead as compared to 7 and 18 dead bass respectively on the first and second day.

Temperatures ranged between 38°F and 55°F on March 5 and 6, but increased to the mid-70's on March 7. Bass survival in the boat live wells was poorer the third day due to warmer water. Observations of the fish taken on the third day and placed in the tank trucks revealed they were less active than the catches taken on the first two days. However, the bass revived rapidly after being placed in well oxygenated hauling tanks.

Initial mortality results of the study strongly suggest that bass experienced physiological stress the third day of the tournament. Initial response of those inactive bass to oxygen present in the fish hauling tank truck was good. Survival was greatly enhanced by this rejuvenation effort.

An unanswered question is what is the critical level of physiological exertion that largemouth bass can tolerate and recover from, the point that separates recovery from delayed morality. Additional study is needed also in measuring physiological stress of bass in boat live wells as related to crowding conditions, length of time retained in the live well, and changes in temperature, as well as oxygen values during the retention period.

While a released bass may swim away from a boat without obvious physical damage, unperceivable stress occuring during handling and retention in the live well may result in eventual delayed mortality. This could be of great significance when related to the accepted theory among laymen that fish released "will survive and grow to furnish better sport on another day."

An effort was made to measure delayed mortality in the March study by retaining 1,007 tournament-caught bass in the isolated two-acre cove. The delayed mortality study in the

B.A.S.S. tournament anglers produced the fish that were used in the program's major phases. In three days of competitive fishing, 200 registered participants caught 2,955 bass.

blocked-off cove was concluded after a period of 26 days.

Results of this part of the evaluation are inconclusive due to an exchange of bass between the study cove and lake. Underwater divers, in their weekly checks, discovered the block-off net lead line was raised by strong winds from the cove bottom on three occasions. Therefore, no definite conclusions can be made concerning the delayed mortality of bass released during the tournament. Total mortality rates ranging between 19 percent and 32 percent have been reported in other B.A.S.S. tournaments held under similar field conditions in early spring months in Mississippi and Texas.

Although inconclusive, the delayed mortality data that was obtained indicates two distinct periods of mortality occured in the cove. There was an initial loss of bass between Day 6 and Day 9. This mortality was probably attributed to hooking damage and stress during catching and handling of the bass. The second period of delayed mortality began Day 13 and extended through Day 24. Mortality of these bass was due to bacterial infections. These two periods of mortaility are similar to conditions observed in a study in 1972 in Ross Barnett Reservoir in Mississippi.

The fish tagging portion of the evaluation study gave some indication of the survival of released bass. Between March 5 and June 18, there was a 16 percent return (115 fish) of a total of 724 tagged fish released after the tournament. Tag returns exceeding 5 percent of the total release are considered excellent results by most fisheries biologists.

It should be pointed out that fishermen reporting the tagged fish said they were in good condition and exhibited intact tags. The rapidity with which tagged fish showed up in the creel of fishermen reveals the bass fed almost immediately after being released. Some tagged fish were caught the day following the day of release.

Dispersal of the tagged bass during March 5 to June 18 ranged from 0 to 5 miles from the release site. Most of the 115 bass were caught within one mile of the release site.

Utilization of the availability of large numbers of adult bass collected in organized fishing tournaments has been promoted in recent years as a good source for gathering basic fisheries research data. The data referred to includes length and weight measurements, scale samples and gonadal samples. Length, weight and scale data will be used to determine age and growth, body condition factors and year class strength of largemouth bass caught during the collection period. The gonadal data will be used to determine sexual maturity and reproductive ability of adult bass in early March in Toledo Bend.

The opportunity to gather a large amount of data in a short period of time provided an excellent source of base information for the beginning of detailed largemouth bass studies on Toledo Bend.

Although no comprehensive deductions can be made about the full effects of tournament fishing, or bass fishing rodeos, on total bass populations in given lakes, impoundments, or other large bodies of water, some conclusions can be brought into correct focus. The taking of large numbers of bass in competitive fishing as the result of concerted fishing pressure, while seemingly excessive, must be evaluated against year around noncompetitive fishing. This will involve extensive research over a long period of time.

The extent of physiological exertion and stress, delayed mortality due to bacterial infection, and other survival factors, must all be considered in formulating opinions about competitive fishing. Cooperative efforts such as those of B.A.S.S. during the March study should shed some light on the potential survival of any bass released after being caught.

Research will continue but the information gained in the March study should provide an excellent base upon which to broaden the collection and evaluation of information on catch and release of largemouth bass.

PIE'S POTPOURRI

By Marian "Pie" Pendley

Though fall has not officially arrived, at least not in the Deep South, hunters are waiting eagerly for opening day of the hunting seasons.

The fall hunting season is ushered in when the seasons on doves, rabbits, squirrels, and teal open—to name just some of the game opportunities for the hunter.

If his aim is as straight and true as he remembered it to be last season and the hunt is successful, the next step is the preparation. Even those with the most discriminating taste should find these recipes to their liking.

SQUIRREL JAMBALAYA

1 medium squirrel
salt and red pepper
3 tbsps. oil
2 lg. onions, chopped
3 stalks celery, chopped
1 clove garlic, chopped
¼ green pepper, chopped
4 tbsps. chopped parsley
2 cups uncooked rice, washed
1½ cups water
2 tsps. salt

Cut squirrel into serving pieces and season well. Saute in oil until brown; remove from skillet. Saute onions, celery, garlic, green pepper, and parsley in oil until wilted. Put squirrel back into skillet; cover. Cook slowly about 30 minutes or until squirrel is tender. Add rice and water. Stir thoroughly. Add salt; cook slowly about 30 minutes or until rice is cooked. Serves 4.

FRIED DOVES

4 doves
½ cup butter
½ cup salad oil
flour
salt and pepper

Clean and split doves. Rinse, dry, and roll in seasoned flour. Melt butter and oil in heavy skillet. Put doves into hot fat and cover skillet for 5 minutes. Remove cover and cook until tender. Serves 2.

RABBIT SAUCE PIQUANTE

1 rabbit, cut in serving pieces
2 tbsps. oil
¼ cup water
2 tbsps. Worcestershire sauce
2 tbsps. flour
1 tbsp. oil
4 tbsps. tomato paste
½ cup water
¼ cup chopped onions
3 tbsps. minced green pepper
¼ cup chopped celery
1 tsp. minced garlic
¼ tsp. hot sauce

Pan fry the rabbit in oil until lightly brown. Add ¼ cup water and Worcestershire sauce. Cover pan tightly and simmer for 25 minutes. In separate pan, brown flour in 1 tbsp. oil. Add tomato paste and water, stirring thoroughly. Add onions, peppers, celery, garlic, and hot sauce. Blend well and pour over simmering rabbit. Cook over low heat about 30 minutes. A small amount of water may be added if sauce becomes too thick. Serve with noodles or rice.

BROILED BREAST OF TEAL

4 teal breasts
4 tbsps. butter
1 tsp. lemon juice
¼ tsp. white pepper
1 can sliced, broiled mushrooms

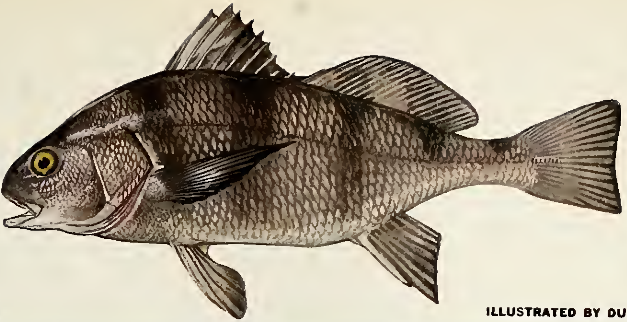
Using only teal breasts, flatten each piece slightly with rolling pin. Mix melted butter with lemon juice and white pepper. Broil breasts 10 minutes on each side, brushing frequently with butter-lemon mixture. When almost done, pour mushrooms over duck. Return to broiler long enough to finish cooking and heat mushrooms. Pour remaining basting sauce over all.

OVEN-BRAISED DOVES

12 doves
6 tbsps. butter
3 tbsps. flour
2 cups chicken broth
½ cup sherry
salt and pepper to taste
2 small cans button mushrooms
¼ cup minced parsley

Season doves with salt and pepper. Melt butter in heavy skillet and brown doves. Remove to baking dish. Add flour to butter in skillet, stirring well. Slowly add chicken broth and sherry. Season to taste. Blend well and pour over doves. Add mushrooms and parsley. Bake at 350 degrees for 1 hour in covered baking dish. Serve over wild rice. Serves 6.

Lloyd Poissenot



FISH OF LOUISIANA

ILLUSTRATED BY DUANE RAVER, JR.

BLACK DRUM

The black drum, *Pogonias cromis*, isn't an attractive fish to start with. The "whiskers" or barbels under the inner edge of the lower jaw on each side, running as far back as below the middle of the eye, assist it in gathering food, but do not add to its general appearance. After drums reach 10 pounds, the flesh becomes coarse. Few sport fishermen care to bring home any drum over seven pounds. The large ones may find their way into commercial markets but are usually given some name other than "drum."

As it gains weight, the drum possesses a rather oblong, compressed body with a much elevated back. Small drum on light tackle offer some sport, but heavy drum do not put up much of a fight. Large drum have to be almost hoisted into a boat or on the bank.

In addition to a relatively short, thick body and a high, arched back, the drum possesses a ventral surface somewhat flattened in appearance. Its mouth is low and horizontal, the upper jaw projecting out over the lower.

The throat of the drum is lined with large flat teeth with which it crushes shellfish with little difficulty. Body coloration is silvery, almost brassy. Fins are black-hued, and the fish becomes gray when dead. There is no black spot at the base of the caudal fin, as in the case of the red drum.

The fish occurs along the Atlantic coast from southern New England to Argentina, and in the Gulf of Mexico as far west as the Rio Grande. It is common from New York southward and many are taken every year by anglers. There is a spring run along the lower mid-Atlantic coast from Deleware to the Carolinas. It produces some big specimens. Seven of the 11 record fish in the current list of World Record Fish, as kept by the International Game Fish Association, were taken in Virginia waters. Two were taken in New Jersey, one in North Carolina, and one in Florida.

The all-tackle world record is a 111-pounder taken May 3, 1974, by G. L. Hopkins at Cape Charles, Virginia. The record drum for Louisiana is a 61 pound 15 ounce fish caught by Walter J. Theriot in June, 1974.

The late James Nelson Gowanloch's book, *Fishes and Fishing in Lousiaia*, reported that studies by John C. Pearson of Texas indicate that drum spawn chiefly from February to May in the Gulf of Mexico and in passes leading from the gulf into bays and coastal lagoons. He also found evidence of a late spawning period from the latter part of July to the early part of November. Although he discovered many adults ripe for spawning in shallow water, his work convinced him that actual spawning did not occur there.

Young drum are believed to spend some time in estuarine waters, at least until they are four inches long. Then they move gulfward and follow the coast in general spring and fall migrations. Those found southward to Argentina apparently do not migrate. There has not been a great deal of research on the drum because it is not highly regarded as either a sport nor commercial fish.

The drum is a bottom feeding fish with a marked partiality for crustaceans and mollusks. It can also devour blue crabs without the slightest difficulty. Those big flat teeth are capable of grinding up oyster shells. Damage to some oyster reefs is attributed to the fish, but this has not been fully substantiated. They will also take shrimp.

Most drum in Louisiana are caught on bait, but along the Atlantic coast, when the spring run is in progress, anglers working the surf will catch large drum on artificial lures.

Young drum have broad vertical markings on their sides but these have a tendency to disappear as they reach maturity, generally about two years of age.

In other sections of their range, drum are known as sea drum, drumfish, banded drum, and big drum, as well as black drum. In Louisiana, they are referred to only as drum.

Anglers seldom catch drum larger than 40 pounds. Most Louisiana saltwater fishing contests have drum listed in the eligble fish categories and offer prizes or trophies for the largest taken. Any fish over 46 pounds becomes a candidate for the Louisiana Fish Records. Fisheries biologists offer no explanation why drum taken along the Atlantic coast during the seasonal run there are consistently larger than those caught in Gulf of Mexico waters.

Manchac Wetlands